

# ELEMENTARY SCIENCE BY GRADES



Book One



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Elementary science by  
grades

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# ELEMENTARY SCIENCE BY GRADES

## BOOK ONE

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# ELEMENTARY SCIENCE BY GRADES

EDITED BY

FRANK W. BALLOU, PH.D.

SUPERINTENDENT OF SCHOOLS, WASHINGTON, D. C.

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## PREFACE

Elementary Science is the natural means through which a child becomes acquainted with the world about him. Without suggestion or direction some children acquire considerable knowledge of their environment; but more remain pathetically and dangerously blind and deaf to it. For the child's physical, intellectual, and spiritual good the educator should see that he is made aware of the phenomena within his observational scope, and his relations to them.

Elementary science, more than any other subject, supplies actual experience with concrete things. It is, therefore, an ideal study in elementary schools, and may be used as a basis of approach to practically every other subject. Present practice in the teaching of elementary science and nature study in the first six years has indicated the need for a graded series of readers having a science content that will conform generally in subject matter and organization to accepted requirements. It was in the hope of supplying such a need that this series, *Elementary Science by Grades*, has been prepared under the general editorship of Frank W. Ballou, Superintendent of Schools, Washington, D. C.

The vocabulary in this volume of the series, *Book One*, has been based upon the first group of Gates, "A Reading Vocabulary for the Primary Grades," and upon Thorndike's "The Teacher's Word Book."

Simplicity in subject matter and style has been an aim in the preparation of this reader in order that the joy of the subject, and the attitudes, habits, and ideals taught by it

may not be lost in a maze of mechanical difficulties. The psychology of the child has been kept constantly in mind in the presentation of the subject matter.

Like other books in the series, this volume has been organized on a seasonal basis. Subject matter has been arranged throughout so it will be suitable for the season of the year in which it normally will be studied. In this book, for example, the squirrel, trees in the autumn, the caterpillar, and certain flowers are studied in the fall. The chapters dealing with astronomy and the physical sciences come during the winter months. The latter part of the book, which ordinarily will be studied in the spring, includes chapters on birds, trees, the toad and snail.

To test reading ability, different forms of new-type tests have been included at the end of every chapter under the heading, "Some Things to Think About." Some teachers, of course, may desire to substitute other forms or to supplement those that have been prepared. Activities are suggested under the heading "Some Things to Do." Specific suggestions to the teacher on the teaching of each chapter are placed at the back of the book.

E. C. P.

E. K. P.

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## THE SEASONS

What are Bobby and Betty doing?

What are the birds doing?

What are on the tree?

What time of year is it?



What are Bobby and Betty doing?

What are the birds doing?

What is on the tree?

What time of year is it?



What are Bobby and Betty doing?

What are the birds doing?

What are on the tree?

What time of year is it?



What are Bobby and Betty doing?

What are the birds doing?

What are on the tree?

What time of year is it?





## PIGEONS

What do pigeons eat?

What can pigeons do?

Where do pigeons live?

Bobby has some pigeons.

Pigeons are birds.

Pigeons are big birds.

Pigeons have feathers.

Pigeons eat seeds.

Pigeons drink water.

What does Bobby eat?

What does Bobby drink?

Pigeons can fly.

They fly with their wings.



Can Bobby fly?

Pigeons can walk.

Can Bobby walk?

Pigeons nod their heads  
when they walk.

They say, "Coo, coo."

Pigeons walk in the street.

Pigeons live in the pigeon house.

Pigeons like the pigeon house.

Do you like your house?

The pigeons stay with Bobby all  
the year.

## SOME THINGS TO DO

Look for pigeons in the street.

See what they do.

Bring a pigeon to school.

Give it seeds and water.

Say “Coo, coo,” as the pigeons do.

## SOME THINGS TO THINK ABOUT

Find the words that tell about  
each picture.



1. Pigeons can fly.
2. Pigeons eat seeds and drink water.
3. Pigeons live in a pigeon house.



## THE CANARY

Have you a canary ?

What can a canary do ?

How does a canary look ?

Betty has a pet canary.

The canary's name is Dickie.

Dickie lives in a cage.

He eats seeds.

He drinks water.

Betty gives the canary seeds to eat.

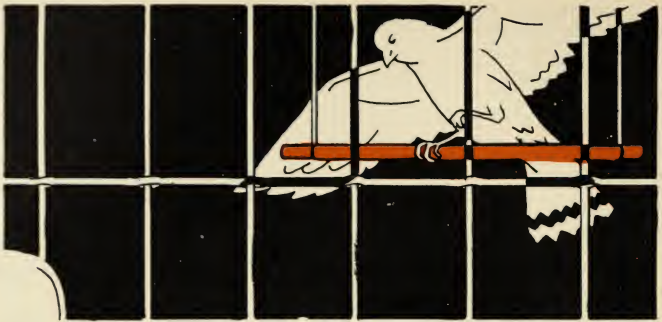
Betty gives him water to drink.

Dickie can sing.  
He sings a sweet song.  
He is a little bird.  
He has yellow feathers.  
He is a little yellow bird.

Dickie can hop.  
Hop, little canary.  
Sing Betty a song.  
Dickie stands on a perch.  
He can fly.  
He can fly up to the perch.

Dickie has bright eyes.  
He looks at Betty  
    with his bright eyes.  
He looks for the seeds and water.  
He has a bill.  
He eats seeds with his bill.  
He drinks water with his bill.





Dickie has wings.

He can fly with his wings.

Fly, little canary.

Fly up to your perch.

Dickie has two feet.

He holds to the perch with his feet.

He hops on his feet.

Dickie likes his cage.

When Betty opens the door,

he comes out.

He hops about. He flies

about the room.

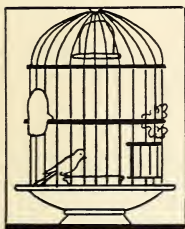
Then he goes back in his cage.

He looks for Betty to give him some seeds and water.

The canary lives with Betty all the year.

## SOME THINGS TO THINK ABOUT

Find the part of the story  
that tells about each one  
of these pictures.



## SOME THINGS TO DO

Bring a pet canary to school.

Tell what it does.

Give it seeds and water.

Keep its cage clean.



## GARDENS

Have you a garden ?

Is it a flower garden ?

Is it a vegetable garden ?

Do you work in your garden ?

It is fun to have a garden.

Betty has a flower garden.

Bobby has a vegetable garden.

Mother cooks the vegetables  
for dinner.

Betty puts flowers  
on the dinner table.

Flowers grow from seeds.

Vegetables grow from seeds.

Fall is the time to gather seeds  
from your garden.

Spring is the best time to plant  
the seeds.

When you plant seeds,  
more flowers and vegetables grow.

Farmers have gardens, too.

Vegetables grow in farmers' gardens.

Farmers sell vegetables in the market.



If you have no garden, you can buy  
vegetables in the market.

The farmer gathers seeds  
from his garden in the fall.

In the spring he will plant  
the seeds.

Then he will have a new garden.  
He will have vegetables to sell  
in the market next summer.

Betty picks flowers from her garden.  
Bobby picks vegetables  
from his garden.

Betty and Bobby gather seeds  
from their gardens in the fall.

All winter the gardens will rest.

In the spring Betty and Bobby will  
plant the seeds.

They will have new gardens.



## FIND THE RIGHT STORY



1. Betty gathers flowers.  
Mother cooks the vegetables.
2. Betty puts flowers on the table.  
Bobby gathers vegetables.
3. Farmers sell vegetables in market.  
All winter the garden will rest.

## SOME THINGS TO DO

Go to see a garden.

Tell all the things that you see  
growing in it.

Find some ripe seeds.

Plan a garden for next spring.

## CATERPILLARS

Have you seen a caterpillar?

Where was it?

What was it like?

What did it do?

Bobby saw a caterpillar.

It was on a tree.

Betty saw a caterpillar, too.

It was on some leaves.

Caterpillars eat leaves.

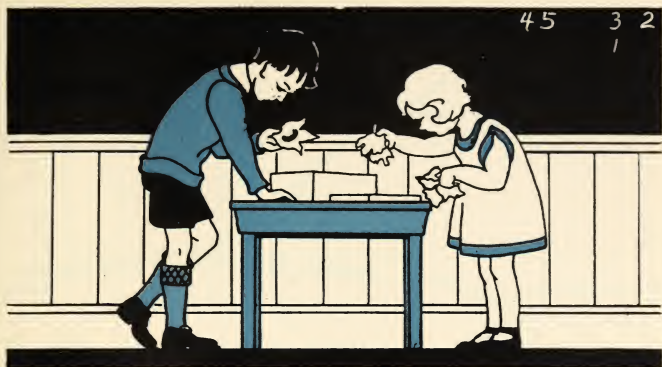
Dick saw a caterpillar in the grass.

Bobby brought a caterpillar  
to school.

He put the caterpillar in a box.

Betty brought leaves to school.

The leaves were for the caterpillar  
to eat.



She put the leaves in the box.

The caterpillar ate the leaves.

Betty brought more leaves  
for the caterpillar.

The caterpillar ate them, too.

Every day Betty brought leaves  
for it.

Betty and Bobby looked at the  
caterpillar.

They looked at it every day.

Betty and Bobby like to look at  
caterpillars.



A caterpillar has a head.  
Find the caterpillar's head.  
On its head are eyes and a mouth.  
The caterpillar eats leaves  
    with its mouth.  
Betty and Bobby like to see the  
    caterpillar eat leaves.  
They like to see it crawl.  
The caterpillar has legs to help  
    it crawl.  
Count them.  
Where are the caterpillar's legs?

You can see many caterpillars  
in the fall.

Look for them. See them eat.  
See them crawl.

Some caterpillars are the color  
of the leaves.

Some caterpillars are the color  
of the ground.

Some are other colors.

Some caterpillars have hair on  
them.

Some have bright stripes on them.

A caterpillar's body is made  
of many rings.

Can you count the rings?





## CAN YOU FIND THESE THINGS?

1. The caterpillar's head.
2. The caterpillar's mouth.
3. The caterpillar's legs.
4. The leaves the caterpillar likes to eat.

## SOME THINGS TO DO

Bring a big box to school.

Look for caterpillars. Look on leaves. Look in the grass.

Bring caterpillars to school.

Put caterpillars in the box.

Bring leaves for the caterpillars to eat.

Tell what they do.





## SUNFLOWERS AND GOLDENROD

Why is this flower called a  
sunflower?

Where do we see the goldenrod?

What color are its flowers?

### Sunflowers

A sunflower is a big yellow flower.  
Betty has sunflowers in her garden.  
Look at the picture of the sunflower.  
There is a big brown spot  
in the middle of the flower.

When the flower is old, there  
are seeds in the brown spot.  
Birds like sunflower seeds.  
They come to Betty's garden  
to eat the seeds.

When Betty plants a sunflower  
seed, another sunflower grows.  
Sunflower plants grow very tall.  
They are taller than Bobby or Betty.  
Some of them are taller than Daddy.  
They have large green leaves.

### Goldenrod

Bobby and Betty saw many flowers  
in the woods and fields this fall.  
One of the flowers was the  
goldenrod.  
The flowers of the goldenrod  
are yellow.



The leaves are green.

Goldenrod grows in the fields.

Have you ever seen patches of yellow  
flowers in the fields in the fall?

Goldenrod grows along the roads, too.

The goldenrod does not grow so high  
as sunflowers.

It is only as high as Bobby's waist.

Late in the fall the goldenrod  
makes seeds.

When the seeds are planted, new  
goldenrod plants grow.

The seeds are so tiny they are hard  
to see.

They have fluffy hairs on one end.

The wind carries them to new homes.

### SAY YES OR NO

Sunflowers are blue.

Goldenrod flowers come in the fall.

Sunflower plants are not so tall  
as Betty.

Goldenrod grows in the garden.

Sunflowers have brown seeds.

### SOME THINGS TO DO

Look for goldenrod in the fields.

Watch sunflowers in the garden.

What becomes of these flowers?

See into what they change.

Try to find seeds of the goldenrod.

Bring some seeds to school.

## THE OAK TREE

What trees do you know?

Do you know the oak tree?

Where does the nearest oak tree  
grow?

Boys and girls have names.

Trees have names, too.

It would be funny to call

Bobby, "John."

It would be just as funny to call

an oak tree a pine.

Bobby and Betty wanted to know  
the names of the trees near their  
school.

Their teacher took the class for a walk.

She said, "We will look at the trees  
near our school."



Then we will choose a tree we like.

It will be our class tree."

The boys and girls looked at  
all the trees.

Some trees were taller than others.

Some had red leaves.

Some had yellow leaves.

Some leaves had fallen  
to the ground.

Under one tree the children  
found acorns.





They liked the acorns.

They liked the acorn cups.

The tree on which they grew  
was very tall.

The leaves on the tree were dark red.  
Some of the leaves had fallen  
to the ground.

The leaves were not like  
the leaves of other trees.

It was an oak tree.

The children chose the oak tree  
for their class tree.

“Last summer the oak leaves  
were green,” said Bobby.

“There were no leaves on the ground  
then,” said Betty.

“Let us watch our class tree  
to see how it looks this winter,”  
said their teacher.



The children picked up acorns.  
They played in the leaves  
on the ground.

They liked the oak tree that gave  
them so much fun.

## SOME THINGS TO THINK ABOUT

Make these right.

The children found acorns

Betty put seed and water

The leaves on the oak tree

The goldenrod flowers

in Dickie's cage.

under the oak tree.

were yellow.

were brown.

## SOME THINGS TO DO

Take a walk to see the trees

near your school.

Choose a tree you like for

your class tree.

Watch your class tree.



## THE SQUIRREL

Where have you seen squirrels?

What can they do?

How do they look?

One day in winter Betty and Bobby  
went to the park.

Near the park they saw a man  
with peanuts.

Bobby bought a bag of peanuts.

They ate the peanuts as they  
walked along.

The day was cold.

There was snow on the ground.

All at once Betty stood still.

“Look, Bobby,” she cried.

Something gray was running  
across the snow.

It was a gray squirrel.

It ran up to Betty and Bobby.

Bobby had a peanut in his hand.

He stood very still.

Can you guess what the squirrel did?

It walked up on Bobby's shoe.

There it sat up on its hind legs.

It reached for the peanut  
with its front feet.

It ate the peanut with its sharp  
teeth.

“Poor little squirrel, it was  
hungry,” said Betty.



“The snow has hidden the nuts,”  
said Bobby.

After that, the children watched  
the squirrels every day.

When the snow was gone, they saw  
the squirrels dig in the ground.  
Then they saw them take out  
some nuts.



The squirrels had hidden the nuts  
to eat in winter.

Betty and Bobby saw the squirrels'  
fur coats.

Some were gray and some were  
red-brown.

They saw a hole in a tree where  
a squirrel lived in winter.

They saw a nest in a tree where  
it had lived in the summer.

Betty and Bobby saw the squirrels  
climb trees.

The squirrels ran up and down  
the trees very fast.

They jumped from tree to tree.

“What big, bushy tails they have,”  
said Betty.

“What fun they have,” said Bobby.

## FIND THE RIGHT WORD

1. Squirrels eat —— with their sharp teeth.
2. A squirrel lives in a —— tree in winter.
3. Squirrels have warm —— coats.

## SOME THINGS TO DO

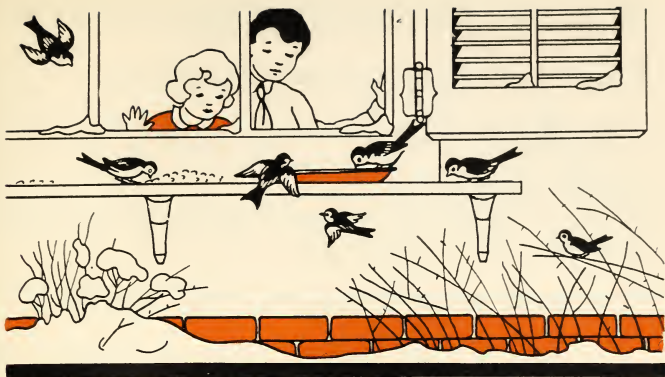
Look for squirrels.

Tell in what kinds of places  
you find them.

Give a squirrel a nut.

Feed the squirrels, if any live  
near you.





## HOW TO HELP BIRDS IN WINTER

Who gives you your dinner?

Who gives the canary its dinner?

How do other birds get their dinners?

Betty gives her pet canary food.

She gives it water.

Bobby gives the pigeons food to eat.

How do other birds get food?

What do they eat?

Where do they get it?

Some birds eat seeds of plants.

Sparrows like to eat seeds.

There are many seeds for them  
to eat in the summer and fall.

Some birds eat fruit.

Robins like cherries.

There is much fruit for the birds  
to eat in the spring and summer.

Some birds eat insects.

They like caterpillars and flies.

There are many insects for the  
birds to eat in summer.

In winter it is cold.

There is snow on the ground.

There is snow on the plants.

The birds can not get seeds.

They can not find many insects  
in winter.

There is not much fruit for them  
to eat.



It is hard for the birds to find  
food in winter.

What can we do to help them?

We can put out food for them  
when it is cold.

We can put out food when there  
is snow on the ground.

Put out bird seed.

Put out bread crumbs.

Put out some water, too.

Can you tell why we should give  
the birds water in winter?

Put the food where the wind  
can not blow it away.

Put it where cats can not get  
the birds.

Build a shelf outside the window.

Put some food on the shelf.

The birds will soon find it.

Betty and Bobby feed the birds  
in winter.

## SOME THINGS TO THINK ABOUT

Tell three things to put out for  
the birds.

Tell three reasons why we should  
feed the birds in winter.

## SOME THINGS TO DO

Make a place to feed the birds.

Put out food every day.

Look at the birds that come to eat.

Tell what they look like.

Tell what they do. Count them.



## THE OAK TREE IN WINTER

Have you watched your class tree?  
Does it look as it did in the autumn?  
What change do you see in it?

All through the autumn Betty and  
Bobby watched their class tree.  
One by one its leaves fell  
to the ground.  
One by one the acorns fell.  
At last winter came.  
Betty and Bobby could see all  
of the oak tree's big trunk.  
They could see all of its branches.  
The beautiful oak tree was bare.  
Other trees were bare, too.  
Only the evergreen trees had leaves  
on them.



The leaves of evergreens are green  
all winter.

Bobby saw something strange  
on the oak twigs.

The twigs are the smallest  
branches of the tree.

He saw little brown knobs  
on the twigs.

Bobby took a twig to school.

He showed the little brown knobs  
to his teacher.

"They are buds," she said.

"What are they for?" asked Bobby.

"Watch the buds, and when  
spring comes, you will see,"  
said his teacher.



## SOME THINGS TO THINK ABOUT

Which tree has green leaves on it  
in winter?

oak                      pine                      apple

Which part of the oak tree has  
buds on it?

trunk                      roots                      twigs

Which one is made of wood?

floor                      cup                      glass

## SOME THINGS TO DO

Tell how your class tree has  
changed since school began.

Look for buds on all the trees.

Make a list of things in your room  
that are made of wood.

## THE PINE TREE

How do the trees look at Christmas?  
Would your class tree make a good  
Christmas tree?

Betty and Bobby wanted  
a Christmas tree.

They wanted their Christmas tree  
to look pretty.

Mr. Brown told them to get  
a Christmas tree in his woods.

They went to pick one out.

On the way they saw their class tree.  
It was bare.

"The oak tree would not be a  
good Christmas tree," said Betty.

Most of the trees in Mr. Brown's  
woods were bare, too.



Their leaves had fallen off  
in the autumn.

“We do not want a bare tree  
for our Christmas tree,” said  
Bobby.

All at once they saw a tree  
that was green.

Its leaves looked like needles.

They were long and thin.

They were sharp at the end.



“Hurrah,” cried Bobby, “what a fine Christmas tree!”

That evening Daddy went with them to get the little tree.

“That is a pine tree,” said Daddy.

“It is called an evergreen.

Can you tell why, Betty?”

Betty guessed. Can you guess why?

“What is this?” said Bobby.

He had found a pine cone on one of the branches.

“That holds the pine tree’s seeds,” said Daddy.

They took the little pine tree home.

They set it up in the living room.

The little pine tree made a pretty Christmas tree.

“Hurrah for our pine tree!” cried the children.

## SOME THINGS TO THINK ABOUT

Find the part of the story that tells

1. How the leaves of the pine tree looked.
2. Another name for a pine tree.
3. What Bobby found on the pine tree.
4. What grows from a pine seed.

## SOME THINGS TO DO

Look at your class tree.

Then look at an evergreen.

Are they alike in winter?

Find the seeds in a pine cone.



## THE SKY AT NIGHT

How does the sky look in daytime?

What do you see in the sky  
in daytime?

What do you see in the sky  
after dark?

Betty and Bobby like to look at  
the sky at night.

In winter the days are short.

The nights are long.

Betty and Bobby look out the  
window at the sky every night  
before they go to bed.

One night they saw the new moon.

It looked like this.



Every night they looked at it.

Every night the moon grew larger.

After a while it looked like this.



“That is a half moon,” said  
Mother.

The moon kept on growing larger.  
At last it looked like this.



“That is the full moon,” said  
Mother.

The full moon was very beautiful.  
When the moon was full, it was hard  
to see the stars.



One night Betty and Bobby did not  
see the moon.

The sky was very dark.

They could see many stars.

Mother said, "Long ago people  
thought the stars made pictures  
in the sky. One of the star  
pictures is the Big Dipper.

There it is in the sky."

Betty and Bobby looked  
out of the window.

They saw something like this.



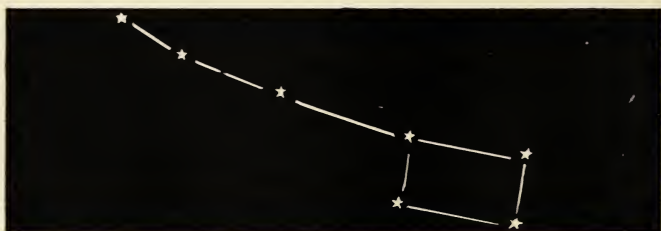
A dipper is a cup with a handle.

“How many stars are there  
in the cup?” asked Mother.

Betty counted them.

Mother said, “Another star picture  
is the Little Dipper. There it is  
near the Big Dipper.”

It looked like this.



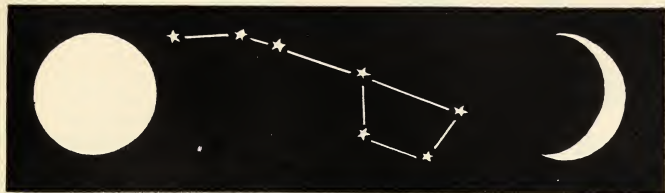
Betty and Bobby counted the stars  
in the Little Dipper.

The Big Dipper and the Little Dipper  
are near each other in the sky.  
Bobby and Betty looked at them  
every night.



## SOME THINGS TO THINK ABOUT

Here are some pictures.



Here are some names

Big Dipper

Full Moon

New Moon

Put the right name under each picture.

## SOME THINGS TO DO

Look for the Big Dipper and the Little Dipper in the sky.

Every night when you see the moon make a picture of it.



## THE SUN

Where is the sun in the morning?  
Where is the sun in the afternoon?  
Where is the sun at night?

Have you ever watched your shadow?  
What color is your shadow?

Betty liked to watch her shadow.  
When the sun was shining, it was  
always near her.

When Betty walked, her shadow  
came along.

When she ran, it followed her.

One morning Betty watched the sun  
come up.

It looked like a big red ball.

When Betty looked at the sun,  
her shadow was behind her.

It was very long.

The shadow was much bigger  
than Betty.

At lunch time, Betty could  
hardly see her shadow.

It was very small.



In the afternoon, the shadow grew longer and longer as the sun went down in the sky.

Can you tell what makes your shadow?

### ANSWER YES OR NO

1. Betty's shadow ran away from her.
2. In the morning, the shadow was very long.
3. At lunch time, it was very small.

### SOME THINGS TO DO

Watch your shadow.

Find out when it is in front of you.

Find out when it is behind you.

Find out when it is longest,  
and when it is shortest.



## THE CAT

Have you a pet cat?

How large is it?

What color is it?

Betty has a pet cat named Fluff.

It is a big, black cat with yellow eyes.

At night, when it is dark, Fluff's eyes  
look like balls of fire.

Fluff can see in the dark.

All cats can see in the dark.

Fluff's black fur is thick and soft.

Fluff likes to have Betty  
stroke her fur.

Betty strokes Fluff from her head  
toward her tail.

Fluff keeps her fur clean.

She cleans it with her tongue.

She licks her paw, and rubs it  
over her face like a wash-cloth.

She licks the rest of her body  
with her tongue.

When Fluff has kittens, she keeps  
them clean, too.

Can you tell how?

When Fluff wants her dinner,  
she says, "Mew, mew."

Betty gives her milk.

She also gives her bread,  
vegetables, and a little meat.

Fluff catches mice.

When she finds a hole where  
mice live, she watches it.





When a mouse comes out, she springs  
upon it.

She holds the mouse with her  
sharp claws.

She eats it with her sharp teeth.

When Fluff was a kitten, she  
caught a bird.

Betty's mother said, "We must not  
let our cat catch birds."

She switched Fluff.

After that, Fluff did not try  
to catch the birds.

Betty's mother strokes her  
because she is a good cat.

When Betty's mother strokes her,  
Fluff purrs.

## SOME THINGS TO THINK ABOUT

Can you ask a question about  
these things?

1. Fluff's eyes.
2. Fluff's tongue.
3. Fluff's fur.
4. Fluff's dinner.

## SOME THINGS TO DO

Bring a pet cat to school.

Feed the cat. Give it milk to drink.

Watch the cat. Look at other cats, too.

Watch kittens at play.

Stroke the cat. Be sure to rub

its fur the right way. Hear it purr.

## THE SWING

Have you a swing at home?

Have you a swing at school?

Can you show how the swing goes?

Look, there goes Betty up  
in the swing!

The swing goes up high in the air.

Then it comes back near the ground.

Then it goes back, and up  
on the other side.

Then it comes down near the ground  
again.

No matter how high it goes,  
it always comes back near the  
ground.

When the swing stops, it is always  
close to the ground.

Watch Betty swing.

Up, and down,  
and back, and down  
and up, and down again.  
When the swing goes up,  
Betty can look at the sky.  
When the swing goes down, she  
can look over at the school.  
When the swing goes back,  
she can look down at the ground.



Swing, swing,  
swing, swing.  
up, and down,  
and back, and down  
and up, and down again.

Bobby helps Betty to swing.  
He gives the swing a push to start it.  
It takes a push to make the  
swing go up in the air away  
from the ground.

The harder Bobby pushes, the higher  
the swing goes.

Look, he has made the swing go  
very high.

Betty can see over the wall!

Oh! what fun!

When Bobby gets in, Betty starts  
the swing.



Bobby is larger than Betty.

He is heavier than she is.

It takes a harder push than it  
did to start it with Betty in it.  
Betty can not make Bobby go  
very high.

Bobby is so heavy that the  
swing does not go very high.

But here comes Daddy! Daddy  
is strong.

Daddy gives the swing a hard push.



Then up goes the swing, and up  
Bobby goes.

Every time Daddy gives the swing  
a push, it goes higher and higher.  
It goes faster and faster, too.  
Higher and higher,  
faster and faster,  
up and down,  
and back, and down,  
and up, and down again.

Betty laughs and claps her hands.  
She likes to see Bobby go so high  
and so fast.

Then Daddy stops pushing.  
The swing does not go so high.  
It does not go so fast.  
It goes lower and lower.  
It goes more and more slowly.



Slowly, slowly,  
lower, and lower,  
up, and down,  
and back, and down,  
and up, and down again.

At last it stops.

Bobby steps out on the ground.

Oh, what fun!

## ANSWER YES OR NO

1. Does a swing ever stop  
when it is high up in the air?
2. Will a swing start if you do  
not start it?
3. Do you need to push harder  
to start a swing when there is a  
big child in it than you do when  
there is a little child in it?

## SOME THINGS TO DO

Play in a swing.

Start the swing for another child.

Watch how the swing goes.

Make a swing for a doll.



## THE AIRPLANE

Do you like to watch airplanes?  
Where do you look for airplanes?  
Can you make a noise like  
an airplane?

One day Bobby heard the noise  
of an airplane.  
He looked in the sky and saw it  
high in the air.  
It was flying fast.

Bobby thought it touched a cloud  
as it went by.

The engine of the airplane makes  
the noise.

An airplane has a propeller.

Find it in the picture on page 72.



The engine makes the propeller go.  
The propeller pulls the airplane  
through the air.

An airplane has wings.  
The wings help to keep it  
in the air.  
It looks like a big bird  
as it flies in the sky.

An airplane has two wheels.  
It can run along the ground  
on the wheels.  
The airplane runs along the ground  
very fast before it goes up  
in the air.  
When the airplane comes down again,  
it runs along on the wheels, too.  
Can you tell who guides  
the airplane?





A pilot guides the airplane.  
He can make it go up in the air.  
He can make it turn.  
He can guide it down to the ground  
again.

Airplanes can fly very fast.  
They go quickly from place to place.  
Airplanes carry letters.  
Sometimes they carry big packages.  
They carry passengers, too.  
Would you like to ride  
in an airplane?

## FIND THE RIGHT WORD

sky	pilot	wings
passengers	engine	wheels

1. The airplane flies in the ——
2. —— help to keep the airplane in the air.
3. The —— makes the propeller go.
4. Airplanes carry ——.
5. The —— guides the airplane.
6. An airplane has ——.

## SOME THINGS TO DO

Watch for airplanes in the sky.  
Find pictures of airplanes.  
Bring toy airplanes to school.  
Make them fly.

## THE ENGINE

Have you ever seen an engine  
pull a train?

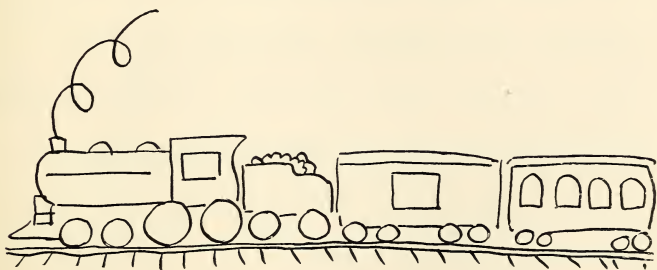
What kind of noise does an engine  
make?

What makes an engine go?

One day Bobby's Daddy went away  
on a train.

He sent Bobby a letter.

The letter said, "Daddy is going  
far away on a train like this.



Be a good boy while I am gone."



One day Bobby's Mother and Bobby  
went to the station to meet Daddy.  
Daddy was coming home again.  
Bobby heard the engine whistle far off.  
He saw the train coming  
down the track.  
It came into the station.  
There was Daddy waving to him.  
The engine had brought Daddy home.  
The engine went S-S-s-s-s-s-s-s-s-s-s  
as it stood in the station.  
A white cloud came from the top  
of the engine.

The white cloud was steam.

Black smoke came from the  
smokestack of the engine.

The black smoke came from the fire  
inside the engine.

The round part of the engine  
is the boiler.

There is water in the boiler.

Have you ever seen water boil  
on the stove in the kitchen?

There is a fire under the engine boiler.

The fire makes the water turn  
into steam.

The steam makes the engine go.



Bobby likes to watch the engine  
pull the train.

Bobby is glad when the train  
brings Daddy home from far away.

## YES OR NO

1. Bobby's Daddy went away  
in an airplane.
2. The train brought Bobby's  
Daddy home again.
3. There is a fire under the engine  
boiler.
4. The smoke makes the engine go.

## SOME THINGS TO DO

Bring toy engines and trains  
to school.

Make a noise like the engine.

Tell what makes the engine go.



## MARCH WINDS

Have you ever seen the wind?  
Have you ever felt the wind?  
Have you ever heard the wind?

March is the first spring month.  
It is the windy month.

Some wind blows every month,  
    but there is much wind in March.  
We can not see the wind,  
    but we can feel it.

Do you know what wind is?  
You have seen fish in a stream.  
Perhaps you have some goldfish  
    in your schoolroom.

Fish live in water.  
We live in air, just as fish live  
    in water.



The air is all around us.  
When air moves, we feel it.  
We call it wind.  
We can see the things the wind does.  
Wind helps people in many ways.  
It helps to dry the clothes  
    on the line.  
It carries your kite high up  
    in the air.  
It makes your pinwheel spin.  
It turns the arms of windmills.  
It makes the sailboats go.

On a warm day we like to feel  
the wind.

It helps to keep us cool.

Sometimes it plays tricks on us.

One March day it blew Bobby's  
hat away.

It blew the papers off Betty's desk.

When the wind is very strong,  
it breaks things.

Sometimes it breaks branches  
off the trees.

Sometimes it tears up trees  
by the roots.

Sometimes it blows down houses.

We can not see the wind, but  
we can hear it.

Can you tell what kind of noise  
it makes?

## A RIDDLE TO GUESS

Sometimes it is strong.

Sometimes it is gentle.

Sometimes it hurts us.

Sometimes it helps us.

We can hear it.

We can feel it.

We can not see it.

What is it?

## SOME THINGS TO DO

Go out and play in the wind.

Tell how it feels.

Make a list of the things you have  
seen the wind do.

Tell the class what you have seen.

Make a paper pinwheel.

## OPENING BUDS

How do winter buds look?

Do all trees have them?

What is inside a bud?

All through the long winter Bobby  
and Betty watched their class tree.

All through the long winter  
they saw the little brown buds  
on its twigs.

Then spring came.

The sunshine grew warmer.

The buds began to grow larger.

One day the brown buds opened.

Inside of them were green flowers  
and green leaves.

At first they were very tiny,  
but they grew fast in the warm  
sunshine.



The flowers were very strange.  
Bobby and Betty did not know  
at first that they were flowers.  
They looked like strings  
of little green beads.  
Their teacher told the children  
that they were flowers.  
Soon the flowers fell off.  
The green leaves grew larger.  
The leaves were soon so large  
that Bobby and Betty could not  
see the branches.



“The oak tree has a new green dress,” said Betty.

“Its dress was all wrapped up in those little brown buds,” said Bobby.

## SOME THINGS TO THINK ABOUT

Draw these three things.

One day the brown buds opened.

Inside of them were green flowers  
and green leaves.

At first they were very tiny,  
but they grew fast.

## SOME THINGS TO DO

Put some twigs in water.

Set them in the sunshine.

Watch to see the buds open.

See what comes out of each bud.

Watch the buds on the trees outside.

## APRIL SHOWERS

Do you like rain? Why? Why not?

Do plants need rain?

What would happen if there were  
no more rain?

April is a spring month.

There is much rain in April.

The April rain helps plants to grow.

Betty knows an old saying,

“April showers  
Make May flowers.”

Can you tell what it means?

April showers come very quickly.

They do not last long.

They go as quickly as they come.

The sun may be shining warm  
and bright.



All at once clouds come  
across the sky.

The sunshine is gone. It grows dark.  
Down comes the rain.

Pit-a-pat, pit-a-pat, go the  
raindrops on the window.

Pit-a-pat, pit-a-pat, they fall  
on the grass and flowers.

They come faster and faster.



Splash, splash, on the oak leaves!  
Splash, splash, on Bobby's raincoat!  
Streams of water run down the street.

Oh, there comes the sun!  
How bright the sunshine looks  
on the wet leaves.  
The clouds are going.  
The shower is over.

The plants like the cool water.

Some of the water goes  
in the ground.

The roots of the plants take it in.

After the shower, the plants are  
nice and green.

Now how fast they will grow!

## YES OR NO

1. April showers come slowly.
2. April showers make May flowers.
3. April showers do not last long.
4. There is very little rain in April.
5. April is a spring month.

## SOME THINGS TO DO

Watch the next April shower.

See how it comes.

Tell what happens.

## LITTLE CHICKS AND DUCKLINGS

Where have you seen little chicks?

How do they look?

What can they do?

Where have you seen little ducks?

How do they look?

What can they do?

How can you tell little chicks  
from ducklings?

Mother hen had a nest on the ground.

It had many eggs in it.

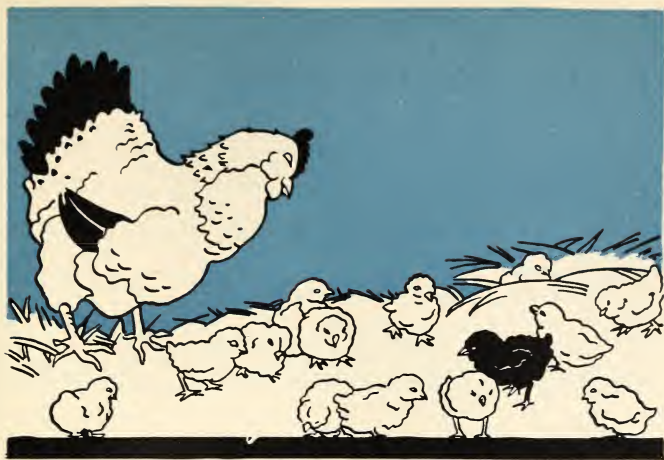
She sat on the eggs a long time  
to keep them warm.

Then little chicks came out  
of the eggs.

They were pretty little birds.

They had bright eyes and  
strong legs.





They ran after their mother the day  
they came out of the eggs.

Mother hen said, "Cluck, cluck."

She went to find food  
for the little chicks.

The little chicks ran after her.

"Peep, peep," said the chicks.

When they had had their dinner,  
they went to sleep under their  
mother's wings.

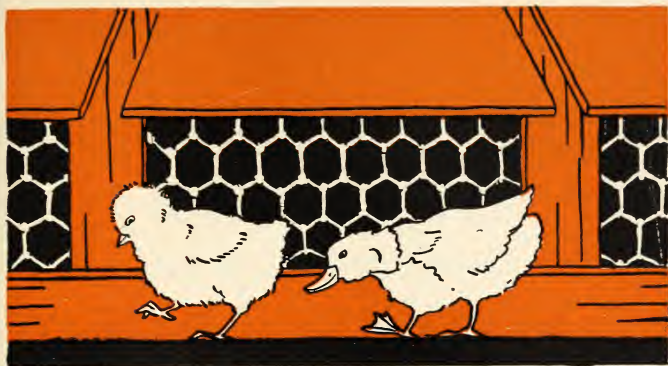
Mother duck had a nest  
on the ground.

Her eggs were big and white.  
She sat on the eggs a long time  
to keep them warm.

Then little ducks came out  
of the eggs.

They were pretty little ducklings.  
They had bright eyes and big feet.  
They did not look like the  
little chicks.





“Quack, quack,” said mother duck,  
as she took them to the water.

The ducklings could swim as well  
as their mother.

They found food in the water.

They liked to swim.

When they came out, it was fun  
to see them walk.

“Little ducks do not walk as well  
as little chicks,” said Bobby.

“But little chicks can not swim,”  
said Betty.

## SOME THINGS TO THINK ABOUT

Here are two words

chicks      ducks

The words below belong with one  
or the other of them. Put them  
under the right word.

hen      water      cluck

quack      peep      swim

## SOME THINGS TO DO

Get a big box and put a wire  
net over the top.

Keep three or four chicks and  
ducklings at school for two days.  
Give them soft bread and water.  
Keep the box clean.



## THE ROBIN FAMILY

Have you ever seen a bird's nest?

Where was it?

Of what was it made?

In the cherry tree is a robin's nest.

Betty can see the nest

from her window.

The father and mother robin

made the nest.

They came back in the spring,

looking for a place to build it.

The mother robin found the place

to build it in the cherry tree.

The mother and father robin

carried sticks to build the nest.



They carried them in their bills.  
Then they brought mud from a pond.  
Betty saw them carry the mud  
in their bills.  
They made a mud cup inside  
the sticks.  
The mud cup was big enough  
to hold the mother robin.  
She sat in the mud cup,  
and turned around and around.  
She made the mud cup smooth  
with her breast.



Then the robins carried grass  
to put inside the mud cup.  
The grass made the nest soft.

When they had made the nest,  
the mother robin laid four blue  
eggs in it.

After that, she sat on the eggs  
for many days.

Betty watched her from her window.  
She heard the father robin  
singing to the mother.

One day, when Betty looked out  
of the window, the father and  
mother robin were gone.

Betty could not see any eggs  
in the nest, but she saw four  
little robins.

The little robins were not pretty.

They had no feathers.

They had very big mouths.

Soon the mother robin came back  
to the nest.

She had a worm in her bill.

All the little robins opened  
their mouths wide.

Mother robin put the worm  
into the mouth of the first little  
robin.

Then father robin came with a worm  
in his bill.

All the little robins opened  
their mouths wide.

Father robin put the worm  
into the mouth of the second little  
robin.



By this time mother robin came  
with another worm.

All the little robins opened  
their mouths wide.

She put the worm into the mouth  
of the third little robin.

Soon father robin came with a worm  
for the fourth little robin.

Mother and father robin did this  
all day long.

“How tired those poor robins  
must be,” said Betty.



Every day she watched.

Every day the mother and father  
fed the little robins all day long.

The little robins grew fast.

They were soon as large as  
their mother and father.

Then they flew away from the nest.

## SOME THINGS TO THINK ABOUT

Make these right

1. The robins built a nest
2. They put grass
3. Betty looked
4. The mother robin put worms

inside the mud cup.

out of the window.

into the mouth of the little  
robins.

in the cherry tree.

## SOME THINGS TO DO

Watch some robins build a nest.

Watch them feed their young robins.

Do not go too close.

Make a picture of a robin.

## A RIDDLE TO GUESS

Go Slow has only one foot.

Wherever Go Slow goes, it leaves  
a shining track.

Go Slow carries its house on its back.

Go Slow has eyes that look  
like horns.

Can you guess who Go Slow is?

Betty could not guess, but Bobby did.

Go Slow is the land snail.

Betty and Bobby looked for snails.

They liked to watch them.

With its one foot, the small snail  
can crawl up walls, as well as  
over the ground.

It can even crawl up a glass window,  
or a glass jar.





The snail's foot is sticky,  
as if it had glue on it.  
That is why the snail can crawl  
up a wall, or up a glass window.  
That is why Go Slow leaves a  
shining track wherever it goes.  
When Go Slow crawls, it stretches  
its body.  
The body is long. The shell  
sits up on its back.  
Birds like to eat snails. Snails  
use their eyes to look for birds.

When a bird comes near, the snail  
draws its body into its shell.

The shell keeps it safe.

Snails have funny eyes.

Flowers grow on stems.

The snail's eyes are on stems, too.

The stems look like horns.

Snails use their eyes to see  
where they are going.

They use them to see when to go  
into their shells.

They use them to find food, too.

Snails like to eat fruit and soft leaves.

Their funny eyes help them  
find this food.

When a snail is looking for food,  
it stretches its eyes far out.

When a snail wants to go into its  
shell, it draws its eyes into its head.



Snails lay eggs. Their eggs  
are about as large as small peas.  
Snail's eggs have soft shells.  
When the little snails come  
out of the eggs, they have their  
shells on their backs.  
In winter snails rest.  
They go into the ground to sleep  
or under a log or stone.  
They have a long sleep before  
spring comes.

It was summer when Betty and Bobby  
saw the snails.

## SOME THINGS TO THINK ABOUT

Find the best ending for each story.

1. The snail carries its house

in a box      on its head      on its back

2. The snail has

one foot              two feet              four feet

3. The snail's eyes

are pretty      grow on stems      are blue

## SOME THINGS TO DO

Find snails out of doors, and

bring them to school.

Feed them. Watch them.

Draw a snail's shell.

Tell what you see the snails do.

## THE TOAD

Have you ever seen toads' eggs?

What do they look like?

What do they change into?

There is a pond near Bobby's school.  
Every spring Bobby looks for toads'  
eggs in the pond.

He finds them in the water  
near the edges of the pond.

Bobby went to look for toads'  
eggs this spring.

He took a bucket with him, so he  
could bring some back to school.

He took an old saucepan to scoop  
up the toads' eggs.

He scooped up some of the pond  
water, too.



He put the toads' eggs and the  
pond water in the bucket.

When he brought them to school,  
the teacher put them in a glass jar.  
After a while tadpoles came out  
of the eggs.

Bobby put the tadpoles  
in an aquarium.

At first the tadpoles had no legs,  
but they had long wriggling tails.



Their tails kept them moving  
through the water.

After a while the tadpoles  
changed to toads.

The toads had no tails, but they  
had four legs to move about on land.

Toads eat insects that fly about.

When it is looking for dinner,  
a toad sits very still.

When an insect flies near, the  
toad opens its mouth.

It puts out its long tongue.

The toad's tongue is sticky,  
and the insect sticks fast.



The toad swallows the insect.

Bobby put the toads out  
in the garden.

Toads sleep in the earth all winter.  
In the spring they come out  
of the earth.

They hop to the pond.

The mother toad lays many eggs  
in the pond.

A toad has long strong hind legs.  
These strong hind legs help  
the toad to hop.

Where have you seen a toad?

How high can it hop?

What other animals do you know  
that can hop?

Toads are almost the color  
of the earth.

Betty looked at a toad without  
seeing it, because it was the color  
of the earth.

When it hopped, she saw it.

## SOME THINGS TO THINK ABOUT

Find a sentence that tells

1. Where Bobby finds toads' eggs.
2. What hatches from toads' eggs.
3. How tadpoles look.
4. What color toads are.

## SOME THINGS TO DO

Draw a picture of a toad's egg.

Look at the toads' eggs in your  
schoolroom every day.

Tell what happens to them.

Draw a picture of a toad tadpole.

Look at the tadpoles every day.

Look for toads out of doors.



## ANIMALS AT THE ZOO

What have you seen at the zoo?

Which animal do you like best?

Betty and Bobby like to go  
to the zoo.

They like to see the animals.

In one of the cages there is a tiger.

The tiger is nearly as tall as Betty.

It is a large animal.

It has a beautiful coat of soft fur.

The tiger's fur coat is yellow  
with black stripes.



In another cage there is a lion.  
The lion is nearly as tall as Bobby.  
It is a little larger than the tiger.  
The lion has a coat of soft fur.  
The lion's fur coat is yellow  
and brown.  
It does not have stripes on it.  
The father lion has a mane  
of long hair about his neck.  
He is called the king of beasts.  
Do you think his mane makes him  
look like a king?

Betty and Bobby like to see the man  
at the zoo feed the lion and tiger.  
He gives them big pieces of raw meat.  
They hold the meat with their  
sharp claws.

They eat the meat with their  
sharp teeth.

The tiger once lived in the forest.  
It had to find its own food.  
It lay still until another animal  
came near.

Then it sprang on the animal.  
It held it with its sharp claws.  
It ate it with its sharp teeth.

The lion once lived in the forest, too.  
It had to find its food as the tiger did.  
Lions and tigers have strong legs.  
They can run fast and spring far.



They have soft pads on their feet.  
They can move without making  
a sound.

They have sharp eyes.  
They can see in the dark.

### WHO AM I?

I live in a cage.  
I eat raw meat.  
I am yellow and brown.  
I have a mane.  
I am called the king of beasts.

### SOME THINGS TO DO

Go to the zoo, the circus, or  
the museum to see lions and tigers.  
Watch a tiger to see how it moves.  
Watch a lion to see what it does.  
Find pictures of lions and  
tigers for your schoolroom.



## THE CHANGING YEAR

In the fall Betty and Bobby went to school.

The sun was not very warm, so they wore their caps and sweaters.

Some mornings it was very cool.

As they walked to school, they saw birds flying by.

Betty took the teacher some sunflowers from her garden.

The teacher said, "Betty, will you  
give me some sunflower seed to plant  
in my garden next spring?"

There was a beautiful oak tree  
in the school yard.

When school was over in the  
afternoon, Betty and Bobby liked  
to play in the oak leaves.

They saw a squirrel getting acorns  
under the oak tree.

The squirrel dug holes and put  
the acorns in them.

He was putting away food for winter.

The trees were getting ready  
for winter, too.

Their leaves were turning  
beautiful colors.

"I like the fall," said  
Bobby. "So do I," said Betty.



All winter Betty and Bobby went  
to school.

The days were cold, so they wore  
their warm coats and hoods.

Some days there was snow  
on the ground.

Betty and Bobby liked to play  
in the snow.

Most of the birds had gone south,  
but there were some left.

It was easy to see them because there  
were no leaves on most of the trees.

Only the evergreens had leaves  
on them.

When it snowed, the children put  
out bread crumbs for the birds.

They put out water for them  
to drink, too.

When Christmas came, they helped  
to trim the little pine tree  
that was their Christmas tree.

"I like winter," said Betty.

"So do I," said Bobby.

One day on the way to school,  
Betty saw a robin.

"Spring has come," she said.

"Yes," said Bobby, "Spring has  
come. I can tell because the March  
winds are blowing. I can fly  
my kite."



Soon other birds came. The robins  
made a nest in the cherry tree.  
There were little green leaves  
on all the trees now.

Bobby found some toads' eggs and  
tadpoles in the pond on the way  
to school.

Every day the sun grew warmer.  
The April showers gave the grass  
and trees a drink.



“Let us plant a garden,” said Bobby.

So Bobby helped Betty plant  
a flower garden at home.

“I like the spring,” said Bobby.

“So do I,” said Betty.

When the summer came, Betty and  
Bobby went to the farm.

They played out of doors without  
hats or coats, for the sun was  
very warm.



They grew brown in the sunshine.  
They fed the chickens and ducks.  
They saw many other birds.  
Sometimes it was hard to see  
the birds because the green leaves  
on the trees hid them.  
There were flowers in the woods  
and fields.  
Betty and Bobby had a good time  
on the farm all the long summer  
days.  
“I like the summer,” said Betty.  
“So do I,” said Bobby.

### SOME THINGS TO DO

Make a list of signs of spring.  
Make a list of signs of every season.  
Tell what season you like best.  
Why?

# WORD LIST

7			
what	"Coo, coo"	hop	fall
are	in	stands	gather
Bobby	street	perch	spring
Betty	house	bright	plants
doing	you	eyes	more
and	like	bill	farmers
the	your	16	too
birds	stay	up	sell
on	all	two	market
tree	13	feet	20
time	look	holds	if
of	for	opens	no
year	see	door	bug
is	bring	comes	will
it	to	out	new
11	school	flies	next
pigeons	give	room	summer
do	as	17	picks
eat	things	then	winter
can	think	goes	rest
live	about	back	21
has	find	part	right
some	words	story	go
big	tell	that	21
have	each	peep	plan
feathers	picture	clean	22
seeds	a	18	caterpillars
drink	14	gardens	seen
water	canary	flower	where
does	how	vegetable	was
fly	pet	work	leans
they	name	fun	grass
with	Dickie	mother	brought
their	cage	cooks	box
wings	he	dinner	23
12	him	puts	ate
walk	15	table	every
nod	sing	19	days
heads	sweet	grow	looked
when	song	from	
say	little		
	yellow		

24  
head  
mouth  
crawl  
legs  
count

25  
many  
color  
ground  
other  
hair  
stripes  
body  
made  
rings

27  
sunflowers  
goldenrod  
why  
called  
brown  
spot  
middle

28  
old  
another  
very  
tall  
taller  
than  
Daddy  
large  
green  
woods  
fields

29  
ever  
patches  
along  
roads

so  
high  
only  
wait  
30

tiny  
hard  
fluffy  
one  
end  
wind  
carries  
homes  
blue  
watch  
becomes  
try

31  
oak  
know  
nearest  
would  
be  
funny  
John  
just  
pine  
wanted  
their  
teacher  
took  
class  
our

32  
choose  
fallen  
under  
children  
acorns  
boys  
girls

33  
cups  
which  
grew  
dark  
chose  
last

34  
picked  
played

36  
squirrel  
went  
park  
man  
peanuts  
bag

37  
cold  
snow  
once  
stood  
still  
cried  
something  
gray  
running  
across  
hand  
guess  
shoe  
hind  
reached  
front  
sharp  
poor  
hungry

38  
hidden  
nuts  
gone  
dig

39  
fur  
coats  
hole  
nest  
climb  
down  
fast  
jumped  
bushy  
tails

40  
warm  
kinds  
feed  
any

41  
help  
who  
food

42  
sparrows  
fruit  
robins  
cherries  
much  
insects  
not

43  
bread  
crumbs  
blow

44  
cats  
build  
shelf  
outside  
window  
soon  
three  
reasons  
place

45  
 did  
 autumn  
 change  
 through  
 fell  
 trunk  
 branches  
 beautiful  
 bare  
 evergreen

46  
 strange  
 twigs  
 smallest

47  
 knobs  
 showed  
 buds

48  
 apple  
 floor  
 glass  
 began

49  
 Christmas  
 wanted  
 Mr. Brown  
 told  
 most

50  
 needles  
 long  
 thin

51  
 hurrah  
 fine  
 evening  
 cone  
 living room

52  
 part  
 alike  
 53  
 sky  
 night  
 daytime  
 after  
 short  
 before

54  
 moon  
 half  
 stars  
 55  
 ago  
 people  
 thought  
 Big Dipper  
 handle

56  
 asked  
 Little Dipper

58  
 sun  
 rise  
 morning  
 afternoon  
 shadow  
 shining

59  
 ran  
 followed  
 ball  
 behind  
 bigger  
 lunch  
 hardly

61  
 Fluff  
 black

fire  
 thick  
 stroke  
 62  
 toward  
 tongue  
 licks  
 paw  
 rubs  
 wash-cloth  
 kittens  
 "Mew, mew"  
 milk  
 meat  
 catches  
 mice

63  
 claws  
 caught  
 switched

64  
 good  
 purrs  
 question

65  
 swing  
 show  
 near  
 side  
 stops  
 close

66  
 over

67  
 push  
 start

68  
 heavier  
 heavy  
 strong

69  
 laughs  
 claps  
 lower  
 slowly

70  
 steps

71  
 doll

72  
 airplane  
 noise

73  
 touched  
 cloud  
 engine  
 propeller

74  
 pulls  
 air  
 wheels  
 guides

75  
 pilot  
 turn  
 quickly  
 letters  
 packages  
 passengers

77  
 train

78  
 station  
 meet  
 heard  
 whistle

far	84	93	104	113
off	riddle	cluck	Go Slow	without
track	hurts	peep	wherever	114
waving	list	sleep	horns	animals
white	85		land	zoo
	opening	95	snail	tiger
79	sunshine	quack	walls	
steam		swim	jar	115
smoke	86	well	105	lion
smokestack	strings	found	sticky	nearly
inside	beads		glue	mane
round		96	stretches	neck
boiler	87	below		king
boil	dress	belong	106	beasts
stove	wrapped	wire	draws	
kitchen	set	net	shell	116
	outside	top	safe	pieces
80		four	stems	raw
glad	88		use	forest
toy	April	97	107	spring
81	showers	family	peas	
March	rain	father	log	117
felt	happen	sticks	stone	pads
windy	May			sound
fish		98	108	118
stream	89	mud	best	caps
goldfish	across	smooth	ending	sweaters
schoolroom	pit-a-pat	breast		
	raindrops		109	119
82		99	toad	yard
moves	90	laid	pond	ready
dry	splash		edges	
kite	raincoat	100	bucket	120
pinwheel	wet	worm	saucepan	hoods
spin		wide	scoop	south
arms	91	first		left
windmills	roots	second	110	easy
sail boats	nice		tadpoles	because
		101	aquarium	
83	92	third	wriggling	121
cool	ducks	fourth		trim
tricks	ducklings	tired	112	124
blew	hen		swallows	farm
strong	eggs	102	earth	signs
breaks	pretty	soon	almost	season









